

TECHNIQUES FOR MEASUREMENT OF DEFORMATION OF  
ELECTRONICALLY SCANNED ANTENNA  
ARRAY STRUCTURES

ABSTRACT OF THE DISCLOSURE

Techniques for simultaneous measurement of multiple array elements of an array antenna. The array is illuminated with a coherent signal source, and each array element phase shifter is cycled through a range of phase shifter settings at a unique rate. The phase shifted signals from each array element are combined to provide a composite signal. The composite signal is processed to extract the phase of the coherent source signal as received at each element. The phase information is used to determine the location of the elements relative to each other.